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ABSTRACT

The successful use of optical scanning at the University of the Pacific (UOP) indicates that such techniques can simplify a number of administrative data processing tasks. Optical scanning is regularly used at UOP to assist with data processing in the areas of admissions, registration and grade reporting and also has applications for other tasks such as football scouting, the compilation of graduation statistics and the maintenance of alumni records. The OPSCAN 100 with card output is currently used, but superior equipment has been designed and will be available when production problems are overcome. The error rates connected with optical scanning are tolerable and should approach 1% as the institution becomes experienced with its system. Errors can be well controlled if sufficient attention is given to providing students and other users with clear directions for marking input and if the data processing forms are carefully designed. (PB)

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ED 086183

OPTICAL SCANNING APPLICATIONS

by

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Dean of Records and
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UNIVERSITY OF THE PACIFIC

ADMISSIONS

There are two areas in admissions work where optical scanning can be of some assistance. The first of these is for the collection of demographic data and the second is to collect pertinent academic data which the computer can use to make an evaluation as to the admissibility of an applicant.

COLLECTION

One of the goals of data collection should be to minimize the number of times an individual is asked to repeatedly submit the same information about himself. Further since the Admissions Office is the initial point of contact with a prospective student, it follows that Admissions should collect information in such a way that the information can be made available for the general campus use without the need for additional requests from the student. To a great extent this means making available names, addresses, telephone numbers, etc., to campus offices via the computer.

A number of schools have elected to keypunch this information. This is time consuming and costly. The question arises as to how data of this kind might be more quickly and economically made available to the computer for mass output. It is to try to resolve this question that Form I, the Admissions Form, was developed at the University of the Pacific. This form makes it possible for the applicant to mark or input a variety of demographic data about himself. It also allows the Admissions Staff to input data related to the applicant's admission. On the side of the sheet which provides for the applicant's permanent address is a boxed area which is not labeled. In this area the staff can indicate the code number of the high school, date of graduation, SAT scores, the number of A's, B's, C's, etc. If a transfer student, the lower three areas portray the college code, the units passed, and the grade point average accumulated.

Two alternatives exist as to when an applicant should receive this form. One possibility is to include it with the letter of admission. The second possibility would be to include it with the application form. If included with the application it would allow the collection of student data at a much earlier stage than if included with the letter of admission. However, if included with the letter of admission, it would obviously reduce the file volume to only those applicants most likely to actually register.

In both instances, however, the applicant has served as his own input device which with some minor checking will diminish time and costs of input considerably. Further this information is ready to flow into the next stage, registration, without

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the need to ask the student to re-submit any of the demographic information or to do so for future registration.

The one problem of using optical scanning forms during the admission process relates to the subtleties involved with the general public when this unusual form is presented to them. However, if an explanation is included which emphasizes that a quicker response time can occur with diminished administrative costs, this should help allay feelings of being "computerized."

EVALUATION

With the input of academic information, a logical next step would be to consider the possibility of developing a computer program which would evaluate this information to determine the status of admissibility. Form I which incorporates the test scores, high school grades for an approved pattern of courses, and with the incorporation of past selection data, can be used to generate prediction information as to the relative merits of the incoming applicants. The transfer student's record will likely present more of a problem for the evaluator and likewise the computer.

The essential rationale for this use of the computer is to enable the majority of applications, which will pose no special problems of admission, to be processed with minimum amounts of time and money. For those that do present special problems, the full attention and concern of the professional evalutor can be given.

Using these procedures at the University of the Pacific, it is hoped will reduce the repetitive requests for the same information over and over again, provide a statistical information base on new students for the development of prediction studies, and increase the individual attention that can be given to those applicants who present unusual or special problems.

REGISTRATION

The input of demographic data during the admission processing should make it possible for the registration process to be concerned with three general areas.

a. address collection and up-date
b. course data collection
c. drop and add changes

ADDRESS COLLECTION

The home or permanent address of each student will have been collected on the Admission Form. Addresses that must be collected, in addition, are the Parent/Guardian address and the local or campus address. Frequently the local address is the last address to be collected since it is unknown until the very last minute. This creates particular problems of timing since there is a heavy demand for local address information by most if not all of the campus offices immediately after registration.

Form II-A provides several possibilities for the student. Each time he registers, he can audit the correctness of the addresses printed on the flyleaf of this form. If correct, the student needs only to turn his attention to his course information. If not correct, he marks in the correct information. Form II-B allows for corrections to the Parent/Guardian address. If there are no corrections to be made, the

student discards Form II-B and does not need to turn it in at the completion of his registration.

The goal is to indicate to the student the information available on him and then make it possible for the student to audit and self-input corrected data. This decentralizes clerical costs in time and money back to the student who also happens to be the one most familiar with these data.

COURSE DATA COLLECTION

A second phase of registration is the allocation of students into specific courses and sections and to be accomplished quickly enough that print-outs can be made available to the faculty at an early date on their class enrollments. Three elements are involved: the advising of students, the maintaining of section balance control, and finally the input of the approved courses and section information about each student into the computer. Form II-A is used to mark the approved courses and sections. Section control can be established by the Registrar's Office, the departments, by the computer, or combinations of these. At U.O.P. the student reports to each department of the courses he is taking to get his name on the control sheets.

DROP - ADD CHANGES

Nearly all collegiate institutions have the problem of a "drop-add" period or registration immediately following the regular registration time. The changes in courses and sections are frequently voluminous in number with all of the attendant clerical complications and workload as an added burden. Someone has suggested that each such change should be assessed a fee of $25 each and that this should reduce the problem. I believe most registrars would feel that this would not solve the problem but it certainly would increase the temperature of the arguments to avoid payment.

The procedure on this campus has been designed to expedite these requests for change yet minimize the undue clerical load that develops. Form III is the "Drop-Add" form which students use to effect approved changes. The records can be updated quickly and economically. For the first time updates can be handled as quickly as the students can turn in the forms. The principle again is to decentralize as much as possible the clerical functions back to the students and thus avoid the heavy workload demands in the office.

GRADE REPORTING

Form IV serves to expedite the reporting of grades by the faculty. It works very well but it has the weakness that no positive student number is available for each student. Instead, identification is determined by the line position of the student in relation to the other students. If one gets out of order, they are all out of order. However, to insert individual student numbers on a grade sheet of this size would mean that only about six students could be indicated on each sheet. This would create volumes of grade sheets which then create storage problems. The line identification has been used on several campuses with no major problems and it is working well on this campus using considerable care in insuring that grades and line positions do not become mixed up. The flyleaf enables the instructor to post the grades outside his office without identifying a particular student by name but only by his social security number.

MISCELLANEOUS USE

FOOTBALL SCOUTING

Some experimentation has been carried out to report football scouting and game reports by means of optical scanning forms. This enables a quick turnaround of information for game review.

GRADUATION STATISTICS

Developing statistics on those students who graduate usually is a chore. With this thought in mind, Form V, Application for Graduation, was designed to assist in the collection of these particular data. The form is partially filled out and marked by the student at the time of his application for graduation. The rest is filled out and marked by the office staff as the degree status is finalized. Once graduation takes place, those who didn't make it are withdrawn from the file and the rest scanned. The analysis is made by the computer. Research, using this technique, moves from a "crisis" type of endeavor to that of a day to day operation and on a planned basis rather than an emotional "hurry-up" procedure.

ALUMNI OFFICE

The information developed for the graduation research is also the kind of data which is useful to the Alumni Office. Hence since it is already available it is just a matter of merging the new information into the alumni files which can occur with negligible effort of any kind.

SUMMER REGISTRATION

A quick and economical procedure to register summer students was desired. Specifically if it could be developed around the idea of a mail registration it would solve many of the office problems. The question arose "Why not design a procedure to allow the summer student to register in his own living room and not be required to stand in line?"

Form VI was designed to accomplish this purpose. The student simply requests the bulletin of course offerings and with this is sent the summer scan form. He makes his decision as to courses, fills out the form, includes his check for payment, and mails the forms and all to the Registrar's Office. This has served to reduce the "trauma" of summer registration problems greatly to the benefit of all. Incidentally, this form is also used for a variety of special registrations such as workshops, institutes, tours, etc.

EQUIPMENT

The equipment in use is an OPSCAN 100 model with card output. This, rather than tape, is because a nearby campus is helping to pay for the machine and different tape channels are involved in the two computers. Once the compatibility of the tape channels can be accommodated, a tape output will be implemented.

A disadvantage of this type of equipment is that the sheets cannot be sorted to a particular order readily. Either they must be hand-sorted or by using a special attachment, force a number onto the tape as the sheet is being read so that later the tape can be alpha sorted. With the alpha sort, a name can be located with its accompanying "read" number and this number then is used to locate the original

scan sheet in the file. The easy location of a scan sheet is important so as to be able to quickly locate a student's form and thus be able to point out to him how his errors took place. This educational feedback to the student is very important so that he can understand how to make correct input in the future.

(MRC) MEASUREMENT RESEARCH CORP.
OR
REPUBLIC TECHNOLOGY CARD SCANNER

The writer has had some experience with this type of equipment. It uses the regular size punched card and reads at a rate of 90,000 cards per hour reading both sides of the card at the same time. Approximately 2400 marking positions are available for use on each side of the card. Furthermore, it can read either marks or punched holes so that a card can be pre-punched with student identification information. This allows the card to be sorted in the same way as any punched card. Since it is card size, it is also more compact for the students to handle than the larger size scan sheets.

Unfortunately this machine is not readily available at this time. Production problems have been evident and when these will be resolved is unknown at this time. The purchase costs are about the same as the OpScan equipment and has a great potential if the factory problems can be resolved.

ERROR RATES

An error rate is dependent upon a variety of items. Some from the student, some from the scanner or the computer, some from the office staff, and some from gremlins much as we like to disbelieve in them.

It has been the writer's experience that with good forms design, pictorial rather than written directions to students, an intensive and on-going educational effort to acquaint students and faculty with the procedures, and finally, to use "golf" stubby pencils rather than other types of lead pencils will contribute to reducing marking and machine errors to less than 1%. We initially set a target goal of 10% or less error rate on the assumption that if that could be achieved it would mean that 90% of the students properly completed the forms and thereby dropped the workload in the office by an equal 90%. We now have achieved 10% and have set a new target of 3%. Presently, it looks like we can shortly be assured of less than 1%.

A variety of computer edit routines can be used to machine detect some errors, the office staff is most motivated to correct their errors, but the gremlins will always be there to keep things from getting dull.

Essentially it becomes a matter of what one is willing to accept in the way of error percentages. If it must be perfect, then it must be recognized that no system has yet achieved that distinction. Errors within small percentages are really more of an annoyance than a major problem and the odds are those most offices would gladly accept in order to reduce the clerical loads.

DIRECTIONS

People under stress situations such as registration, rarely are able to concentrate their attention. Expecting people to read and understand instructions under these

circumstances is probably asking too much. Pictures, on the other hand, can be understood without the degree of concentration required of reading. Pictures enable a meaning to get across without being misinterpreted as easily as written messages. Hence, it is suggested that pictorial rather than word directions will help with understandings and reduce the error rates due to lack of reading and misunderstandings of what presumably have been read.

FORMS DESIGN

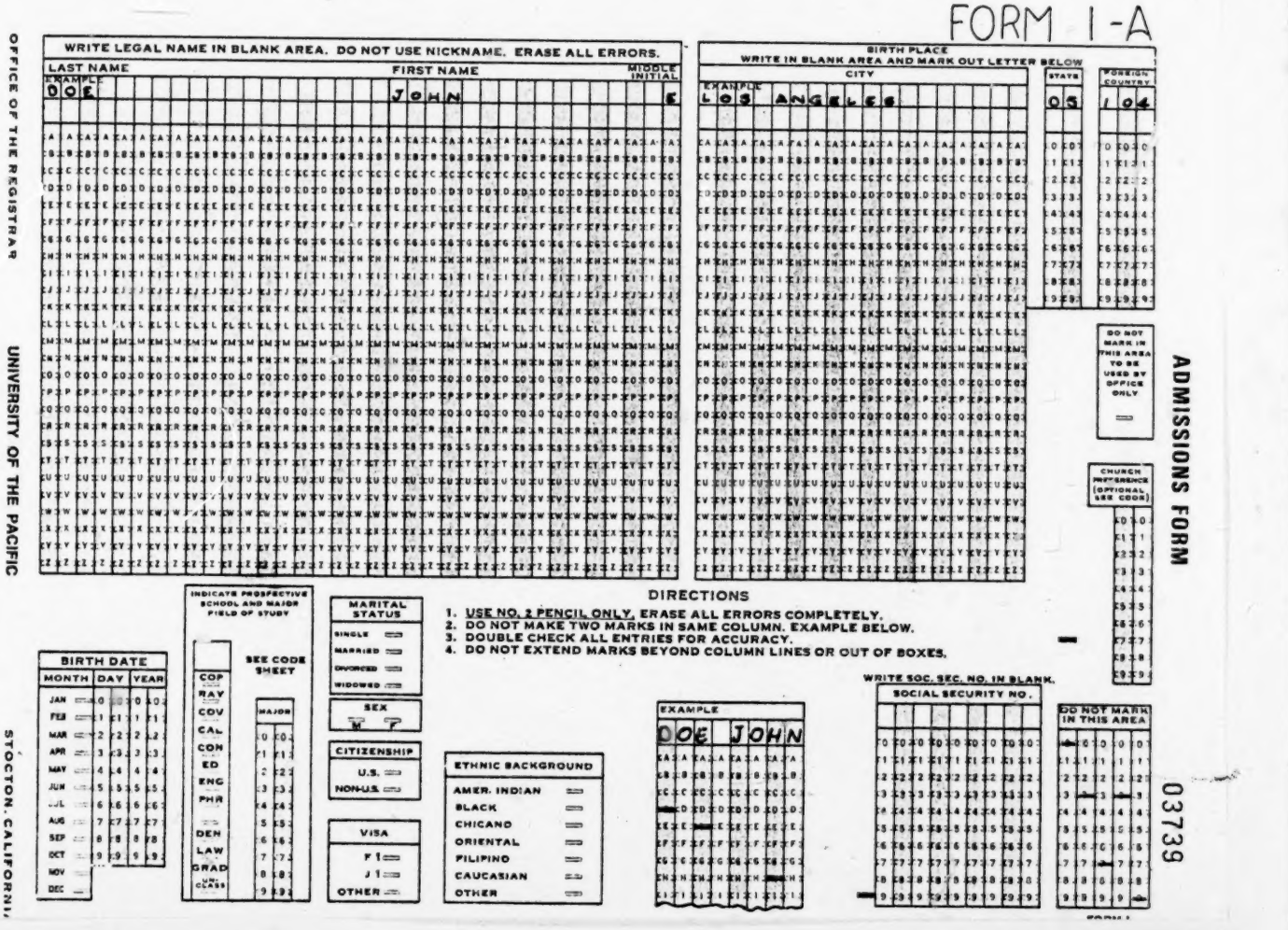
A most critical state in the optical scanning development occurs with the design of the forms to be used. The following are some suggestions which have been found to be helpful.

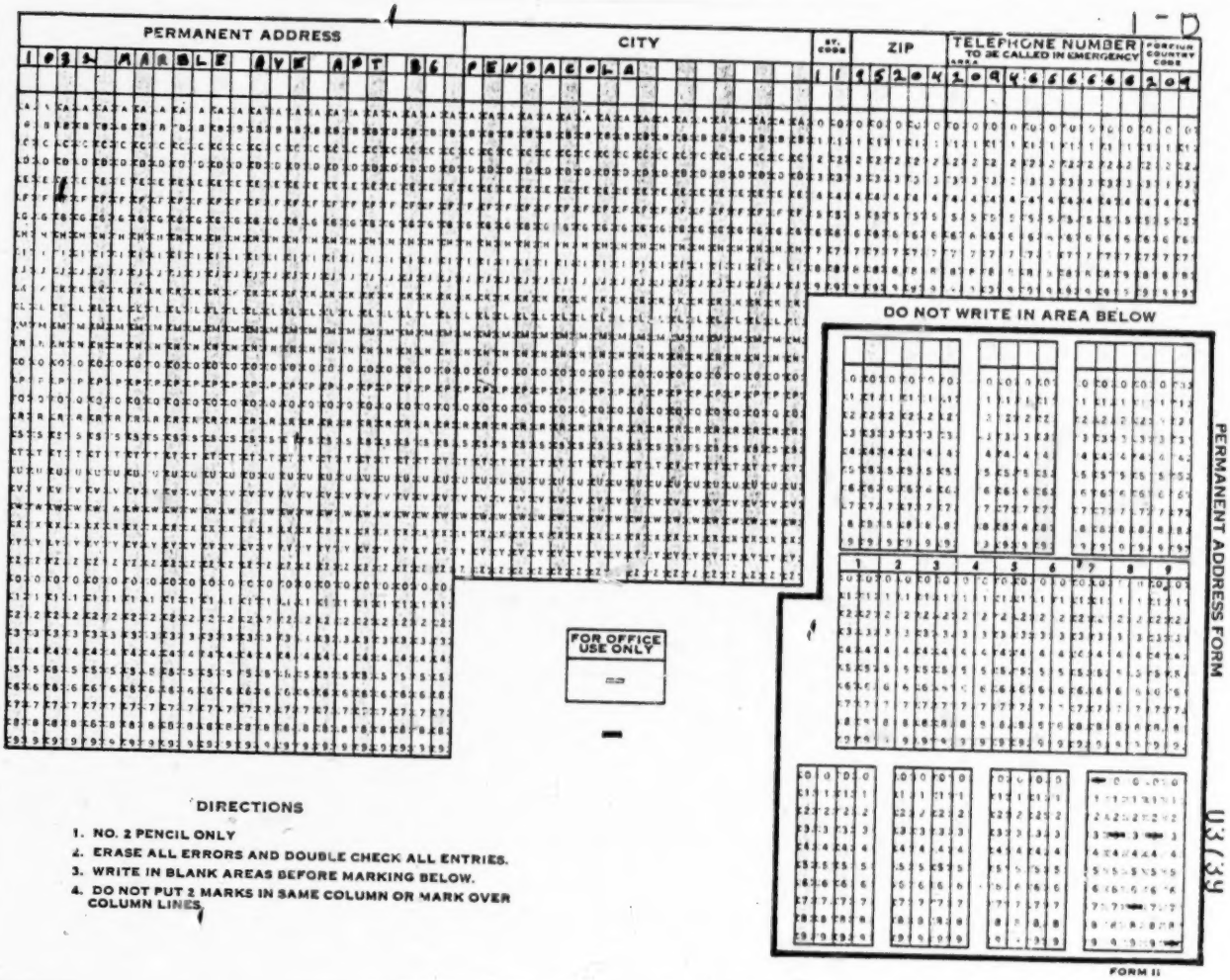
a. acquire as large a variety of sample forms as possible in the areas of your particular application interests. From these you can observe how others have approached the same problems.
b. provide in your design for the possibility of printing or "slugging in" the student number and name by the computer before putting the forms in the hands of the students. This will minimize the opportunity of identification errors in the reading of the student number.
c. provide for the possibility of printing student information which is subject to change and allow the student to thereby audit the information and to make corrections directly on the form himself. The file maintenance problems will become more manageable as a result.
d. alternately shade columns to counter "double marking" in a single column. Use boxes at the head of each column so the student can initially insert an appropriate letter or number before he marks.
e. have forms printed at a source which can print to close tolerances. Money saved at forms printing time can be particularly expensive if the forms won't "read."
f. some printing ink seems to be more effective than others. The writer has the impression that red and green inks are to be preferred.
g. the use of the "golf" stubby pencils rather than the regularly commercial #2 pencil seems to produce better results. The reason for this may be because the stubby has minimum graphite because of its cheap production. Graphite produces a sheen which reflects light. The principle of the machine relies upon the absorption of light in the mark thus producing a "reflection" of reduced intensity than from the original light source. Further, providing these cheap pencils to students to use, provides for a similar marking quality which helps with consistent reading results.

CONCLUSIONS

With a pencil and a piece of paper any student can become his own input device through the use of optical scanning procedures. He can thereby audit his own data in the computer and input new or revised data. As costs in administrative services come under increasingly more and more questioning yet the demands for expanded informational services are ever more evident, optical scanning can provide major help in resolving the problem.

At the same time it must clearly be understood that there are some pitfalls in the use of this equipment since so much depends upon the actions of persons over whom little or no real control can be exerted other than through persuasion. However, most students have had considerable experience with optical scanning marking. Most of them have marked standardized test sheets throughout a good portion of their school career and have as a result a greater sophistication in its actual use than might be thought at first. Furthermore, once the student can see how its use will reduce the tedium repetitiously filling out a multitude of forms, term after term, he quickly becomes a true believer in its use.





OFFICE OF THE REGISTRAR

UNIVERSITY OF THE PACIFIC

STOCKTON, CALIFORNIA

1 - D

U3/34

DIRECTIONS

1. NO. 2 PENCIL ONLY
2. ERASE ALL ERRORS AND DOUBLE CHECK ALL ENTRIES.
3. WRITE IN BLANK AREAS BEFORE MARKING BELOW.
4. DO NOT PUT 2 MARKS IN SAME COLUMN OR MARK OVER COLUMN LINES.

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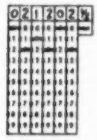
for all forms in this paper

DIRECTIONS

1. USE No. 2 pencil only.
2. FILL OUT COURSE REQUESTS as follows:
   a. keep pencil marks within brackets.
   b. for VARIABLE UNIT COURSES use areas 13, 14, 15, and 16 to indicate units/half units.
   c. SAMPLE:



3. If information printed at far right is:
   a. CORRECT - complete COURSE REQUESTS ONLY.
   b. INCORRECT - fill out only areas to be corrected on the scan sheet and check CORRECTIONS ONLY box.
   c. NOT PRINTED - fill out all areas and mark the scan sheet accordingly.
4. DOUBLE-CHECK all entries carefully - any mistakes will jeopardize the accuracy of your record.

COURSE CALL NO.	DEPT	COURSE NO.	TITLE	UNITS OR CREDITS	INSTRUCTOR	HOUR	DAYS	BLDG. & ROOM NO.

→ TOTAL THIS TERM

NOTE

ANY CHANGE IN THIS PROGRAM OF STUDIES MUST BE MADE BY DROP/ADD PETITION FROM REGISTRAR'S OFFICE.

STUDENT SIGNATURE _____ DATE

ADVISOR SIGNATURE _____ DATE

PARENT — ADDRESS, CITY, NAME

STUDENT — LOCAL ADDRESS, CITY, NAME, MAJOR, SCHOOL

REGISTRAR

FOR GOOD COPIES, PRESS PENCIL HARD

COURSE SELECTION / REGISTRATION

FORM 2A

COURSE REQUESTS

1 CALL NO.	5 CALL NO.	9 CALL NO.	13 CALL NO.	UNITS
2 CALL NO.	6 CALL NO.	10 CALL NO.	14 CALL NO.	UNITS
3 CALL NO.	7 CALL NO.	11 CALL NO.	15 CALL NO.	UNITS
4 CALL NO.	8 CALL NO.	12 CALL NO.	16 CALL NO.	UNITS

LOCAL ADDRESS (IF ON CAMPUS INDICATE RESIDENCE AND ROOM NO.) — CITY

IF CORRECTIONS ONLY

MARK CORRECTIONS IN PROPER AREA AND MARK WHICH IS TO BE CORRECTED HERE:

SOC.SEC.NO. OTHER

IF SOCIAL SECURITY NO. SHOWN AT TOP IS WRONG, INSERT YOUR CORRECT NUMBER AND MARK IN SPACES BELOW.

LOCAL TELEPHONE NO

LOCAL ZIP CD.

PLEASE MARK CAREFULLY AND DOUBLE CHECK EACH ITEM FOR ACCURACY

STUDENT NAME

SOCIAL SECURITY NO.

OFFICE OF THE REGISTRAR — UNIVERSITY OF THE PACIFIC — STOCKTON, CALIF.

INSTRUCTIONS

NAME

1. USE FIRST TWO SPACES FOR INITIALS.
2. BEGIN LAST NAME IN NEXT SPACE.

SAMPLE

MR. C E B R O W N

STREET ADDRESS

LEAVE NORMAL SPACING AS INDICATED IN SAMPLE BELOW.

SAMPLE

7 3 7 E H A V A S U S T N O 6

CITY

1. LEAVE NORMAL SPACING IN CITY NAME.
2. ABBREVIATE CITY IF NECESSARY.

SEE CODE SHEET FOR FOREIGN

SAMPLE

L O S A N G E L E S

2 B

PARENT/GUARDIAN

NAME

STREET ADDRESS

CITY

FOREIGN COUNTRY

SEE CODE SHEET

STATE CODE

STUDENT NAME

SOC SEC NO.

PARENT'S TELEPHONE

AREA NUMBER

NOTE
FOR FEE PAYMENT SEND BILL TO:

- LOCAL ADDRESS
- PERMANENT ADDRESS
- PARENT'S ADDRESS
- SPECIAL ADDRESS LEFT IN CASHIER OFFICE

ADDRESS GRADES SHOULD BE SENT TO:

- LOCAL ADDRESS
- PERMANENT ADDRESS
- PARENT'S ADDRESS
- SPECIAL ADDRESS GIVEN TO REGISTRAR

IF CORRECTIONS ONLY

MARK CORRECTIONS IN PROPER AREA AND MARK WHICH IS TO BE CORRECTED HERE:

SOC. SEC. NO. OTHER

CREDENTIAL CANDIDATE

YES NO

IF SOCIAL SECURITY NO. SHOWN AT TOP IS WRONG, INSERT YOUR CORRECT NUMBER BELOW

ZIP CODE

OFFICE OF THE REGISTRAR

UNIVERSITY OF THE PACIFIC

STOCKTON, CALIF.

FORM III

PRINT NAME (LAST NAME FIRST) _____ DATE: _____

REGISTRAR'S OFFICE

UNIVERSITY OF THE PACIFIC

STOCKTON, CALIF.

DROP ONLY

CALL NO. | CALL NO.

CALL NO. | CALL NO.

CALL NO. | CALL NO.

CALL NO. | CALL NO.

ADD ONLY

CALL NO. | UNITS

AUDIT ONLY

CALL NO. | UNITS

AUDIT ONLY

CALL NO. | UNITS

AUDIT ONLY

CALL NO. | UNITS

AUDIT ONLY

CALL NO. | UNITS

AUDIT ONLY

WITH THESE CHANGES, MY COURSE WILL BE AS FOLLOWS:

	INSTRUCTOR INITIALS FOR COURSES ADDED	CALL NO.	DEPT.	COURSE NO.	ADD OR DROP	TITLE	UNIT COURSE
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14						TOTAL UNITS	

STUDENT SIGNATURE _____ DATE _____

ADVISOR SIGNATURE _____ DATE _____

DIRECTIONS

1. USE NO. 2 PENCIL ONLY. ERASE FULLY ALL ERRORS.
2. INSERT CORRECT SOCIAL SECURITY NUMBER IN BOXES PROVIDED AND MARK CORRESPONDING NUMBER BELOW. (SEE EXAMPLE BELOW)
3. MARK IN CORRECT CALL NO. FROM THE TIME SCHEDULE FOR EACH COURSE DROPPED OR ADDED. DO NOT USE COURSE NO.
4. USE ALL FOUR DIGITS OF THE CALL NUMBER.
5. IF A CHANGE OF UNITS IS INVOLVED, DROP THE COURSE AND THEN INDICATE AN ADD WITH CORRECT UNITS.
6. COURSES WITH VARIABLE UNITS (IND. STUDY, THESES, ETC.) SHOULD BE DETERMINED WITH INSTRUCTOR. MARK THE NUMBER OF UNITS AND THE CORRECT CALL NO. IN AREAS 2, 4, 6, 8.
7. CHECK "EXAMPLE" BELOW. THE ACCURACY OF YOUR RECORD WILL DEPEND UPON YOUR ACCURACY AT THIS POINT.
8. IF AUDITING A COURSE, MARK "AUDIT ONLY" TO THE LEFT OF THE NUMBERED AREA.

EXAMPLE

CALL NO. 0141 | UNITS 035

FILL OUT THIS AREA FIRST

SOCIAL SECURITY NO.

UNIVERSITY OF THE PACIFIC

FINAL GRADE REPORT FORM IV

REGISTRAR'S OFFICE

GRADE REPORT

CALL NO.	DEPT.	COURSE NO.	TITLE	INSTRUCTOR	PAGE

PLEASE DO NOT WRITE IN THIS AREA →

DIRECTIONS: 1. USE NO. 2 PENCIL TO MARK IN GRADE BRACKETS. MARK HEAVILY BUT STAY WITHIN BRACKETS. ERASE ALL ERRORS COMPLETELY. 2. WHEN WRITING OR GRADE SHEET, TO MAKE COMMENTS OR TO ANY STUDENTS, USE RED INK OR RED BALLPOINT. 3. PLEASE WRITE GRADE IN COLUMN TO RIGHT IN RED. MARK (AU) FOR STUDENTS AUDITING COURSE. 4. TEAR OFF FLYLEAF BEFORE TURNING IN GRADES. POST IF YOU WISH FOR STUDENTS TO SEE.

I

	STUDENT'S NAME	ID#	GRADE	AUDIT	GRADE (OR "W")
1			A B C D F P H L W NC N	AU	
2			A B C D F P H L W NC N	AU	
3			A B C D F P H L W NC N	AU	
4			A B C D F P H L W NC N	AU	
5			A B C D F P H L W NC N	AU	
6			A B C D F P H L W NC N	AU	
7			A B C D F P H L W NC N	AU	
8			A B C D F P H L W NC N	AU	
9			A B C D F P H L W NC N	AU	
10			A B C D F P H L W NC N	AU	
11			A B C D F P H L W NC N	AU	
12			A B C D F P H L W NC N	AU	
13			A B C D F P H L W NC N	AU	
14			A B C D F P H L W NC N	AU	
15			A B C D F P H L W NC N	AU	
16			A B C D F P H L W NC N	AU	
17			A B C D F P H L W NC N	AU	
18			A B C D F P H L W NC N	AU	
19			A B C D F P H L W NC N	AU	
20			A B C D F P H L W NC N	AU	
21			A B C D F P H L W NC N	AU	
22			A B C D F P H L W NC N	AU	
23			A B C D F P H L W NC N	AU	
24			A B C D F P H L W NC N	AU	

	GRADE	SOCIAL SECURITY NUMBER	
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
10			10
11			11
12			12
13			13
14			14
15			15
16			16
17			17
18			18
19			19
20			20
21			21
22			22
23			23
24			24

INSTRUCTOR'S SIGNATURE: _____ DATE: _____

EC 8330

INSTRUCTOR'S SIGNATURE: _____

FORM V

GRADUATING STUDENT FORM

Print name in boxes as you wish it to appear on your diploma. Mark letters below.

Last Name

First Name

Middle Name

Matriculation Statistics
OFFICE USE ONLY

Freshmen
Sophomore
Junior
Senior
Graduat

Semester Enter

Winter
Spring
Summer I
Summer II
Fall

Matric Year

Honors
1
2
3
DO NOT MARK THIS AREA

UOP GPA

GPA CUM.

Major

Degree

College or School

COP
RAY
COV
CAL
CON
ED
ENG
PHR
UC
MSN
GRD

SEMESTER YR. GRAD

Sex
M
F

Are you planning to attend graduate school
U.O.P
Other

Will you be using U.O.P. placement office for job opportunities?
yes
no

Did you transfer from
Junior College
4 yr. college

NAME _____
Sign name as you wish it to appear on your diploma

DEGREE _____ MAJOR _____

DATE ON WHICH YOU WILL HAVE MET REQUIREMENTS _____

ADDRESS _____

CAMPUS ADDRESS _____

ADVISER _____

PHONE _____

Social Security No.

DIXON 49056

FORM VI

SIDE 1
(See Other Side)

SUMMER OR **SPECIAL REGISTRATION** FORM

DATE

STUDENT SIGNATURE

FIRST SUMMER SESSION OR EXTENSIONS, WORKSHOPS AND TOURS

	CALL NO.	DEPT.	COURSE NO.	COURSE TITLE	
1					
2					
3					

a. Transfer No. 1 Call No. to No. 1 box below. TOTAL UNITS
b. Use No. 2 pencil to mark in columns (See example below).

	CALL NO.	UNITS
1		
2		
3		

SECOND SUMMER SESSION ONLY

	CALL NO.	DEPT.	COURSE NO.	COURSE TITLE	
1					
2					

a. Transfer No. 1 Call No. to No. 1 box below TOTAL UNITS
b. Use No. 2 pencil to mark in columns (see example below).

	CALL NO.	UNITS
1		
2		

EXAMPLE

CALL NO.	UNITS
042105	

DC 9416

LAST NAME — EXAMPLE: DOE

FIRST NAME — Middle Initial: JOHN

ALL STUDENTS WRITE IN YOUR SOCIAL SECURITY NO. AND MARK

ALL STUDENTS FILL OUT THIS AREA

FRESHMAN
SOPHOMORE
JUNIOR
SENIOR
GRADUATE SCHOOL
UNCLASSIFIED
NOT IN DEGREE PROGRAM
FIRST TIME U.C.P.

MARK IN THIS AREA FOR SPECIAL COURSES ONLY

MARK SEMESTER OR TERM	SPECIAL COURSES
WINTER	EXTENSION
SPRING	
I SUMMER	WORKSHOP
II SUMMER	
FALL	TOURS

OPTICAL SCANNING CORPORATION

SUMMER OR **SPECIAL REGISTRATION** FORM

SIDE 2
(See Other Side)

REGISTRAR'S OFFICE

ADDRESS

EXAMPLE: 123 STATE APT 3

CITY

EXAMPLE: STOCKTON

STATE	ZIP CODE	AREA CODE	PHONE
EXAMPLE: 03	95204	209	EXAMPLE: 477 1234

THE ADDRESS INDICATED ON THIS FORM IS:

(More than one grid may be marked)

A. My Local/Campus Address
B. My Permanent Address
C. My Parent's Address
D. To Be Used For Fee Billing
E. To Be Used To Send Grades

EXAMPLE

ADD 1234

DO NOT MARK HERE

DC 9417

OFFICIAL SCANNING CONSTRUCTION